

# ENVIRONMENTAL BUSINESS JOURNAL®

Strategic Information for a Changing Industry

REPRINT

Environmental Industry Outlook 2021

Environmental Business International Inc.

## E2 CONSULTING ENGINEERS ACCELERATES GROWTH AND EFFICIENCY BY ADVANCING DIGITAL WORKPLACES & 'BIG DATA'

**E2 Consulting Engineers Inc.** (E2) is a professional services firm established in 1988 specializing in a full spectrum of engineering services including, project engineering and design, federal base operations and infrastructure support services, gas pipeline construction and inspection services, environmental consulting and remediation, water-wastewater services, and information technology services. E2 values safety, innovation and collaboration, is dedicated to excellence. E2 has 450+ professionals working across 9 offices within the country. E2 has been on an upward trajectory and is poised for continued growth over the next 5 years. In 2020 alone, E2 was fortunate to increase its employee base by over 50%. The company recently expanded office spaces in Los Angeles, Atlanta and Denver and opened offices in San Diego, now totaling 9 offices nationwide to support clients.

Radhika Sreenivasan, Director for Environmental Services. Ms. Sreenivasan has been with E2 since 2013 and leads the company's environmental services division and manages federal, state and private clients providing investigation, remediation, permitting, compliance, and inspection services. Radhika holds her expertise in working at Superfund Sites to provide site characterization, long-term monitoring, feasibility study, remedial design, remedial actions and operation and maintenance.

### EBJ: How has business been for E2 over the past couple of years?

E2: Our company has been on an upward growth trajectory for the past several years, largely as a result of our ability to incorporate cutting edge technologies to our services model and improve efficiencies both in house and for our clients.

Our proprietary software application, E2 M2M®, which allows for real time field data collection, has been instrumental in providing our clients with immediate access to critical field data for their projects. Because we've always been flexible with remote working schedules, we were able to pivot quickly during the global pandemic and allow all staff to immediately begin telecommuting resulting in zero downtime for the majority of our staff.

We quickly created a software tool to allow all employees to submit daily health checks for their safety and the safety of our clients. While it has been a trying year for many during the pandemic, we are proud

and fortunate to say E2 has been well positioned to continue to support our clients with the high level of service they have become accustomed to.

### EBJ: What are E2's post pandemic business priorities?

E2: As we move into this post pandemic environment, we understand the need to be virtual with our clients. While most of our technology for this support was already in place, we are now beginning to leverage it even more. Such as document management through SharePoint and OneDrive, virtual meetings using Microsoft Teams, Zoom, WebEx Meetings and GoToMeeting, and our Information Technology Team monitoring all technology for cyber security and compliance.

### EBJ: How would you describe the resiliency of the environmental industry today?

E2: A part of the resiliency of the environmental industry is directly related

to federal, state, and local regulations, and another part is related to community awareness and resolve in this area. While the regulatory part goes up and down based on the elected government, community awareness and resolve in the country have kept increasing all along in the last few decades. Environment awareness and management has been integrated into the workings of most industry today, especially the environmental industry. Overall, the environmental industry has shown relatively quick recovery after economic downturns. The same applies to and is already manifesting after the current economic recession caused by the pandemic.

### EBJ: Describe the demand for Environmental Investigation, Permitting and Remediation in your key markets.

#### Federal

Superfund (CERCLA) and RCRA will continue to dominate demand for environmental investigation, permitting, and remediation. Emerging chemicals such as PFAS are the drivers for not only new site investigations but also to revisit old sites where work had been completed several years ago. New regulations are being added as we find more chemicals of concern, and this is driving work in the environmental industry.

Private industries (manufacturers, chemical and pharmaceutical industry, etc.) are voluntarily doing much work for environmental investigation and remediation in the country today as a result of community awareness and responsibility as a good citizen. Work related to environmental permitting and remediation will increase as federal agencies are now swinging from deregulation to more regulation. Environmental justice related work will add to the work being done by the environmental industry. As the economy recovers from the pandemic related recession, environmental work being done by potentially responsible parties and manufacturing industry under federal regula-

tions will increase.

## Technology

It has been pivotal for our clients to include technology in all methods and means of the project. Including a convenient, efficient, complete, and real time data collected during the investigation and remediation phases of the project has been in great demand and will continue to be a priority. E2 uses our in-house E2 M2M® for data collection, reporting and sharing. In addition, E2 M2M® is also used for documents and project plan review, permit tracking, safety meetings and accident reports, quality control and quality assurance, and enhanced GIS integration. The applications of E2 M2M® is constantly growing, and the use of iPad over paper forms has proven successful in providing our clients monetary benefits, especially in the current pandemic where field oversight has been limited.

## Utilities, Distribution & Transmission

Utilities, distribution and transmission industries have stringent environmental investigation, permitting, compliance, and inspection regulations. The demand especially for biological monitoring, cultural monitoring, and stormwater compliance to the NPDES Construction General permit, is anticipated to increase as a result of community awareness. During the current pandemic, technology has also played a very important role for our clients in this sector as environmental monitoring and

inspection work is being conducted in remote areas by limited staff without oversight.

## Water & Wastewater

Similar to the other sectors, new analytes will be added to water treatment plants as a result of the emerging chemicals. For wastewater, more indicator chemicals will need to be monitored as a result of the current pandemic. This results in additional work in the areas of environmental chemistry as well as data management. Combined sewer overflows will be eliminated as a result of regulations and focused compliance in this decade.

### **EBJ: What role does technology have within your company? How are you using technology to differentiate your company?**

E2: Our technology and digital workplace includes both internal technology stack as well as technology consulting and solutions E2 provides for its client base. Internally, technology plays a critical role enabling E2 employees to get their work done effectively and efficiently. It ranges from E2 M2M® software product, network and core infrastructure, HR applications and core business applications including collaboration platforms (instant messaging, email) to enterprise social media tools and virtual meeting tools.

Over past several years, E2 has evolved its technology stack and digital workplace

by integrating all modern toolsets and provide virtual environments for all employees to work remote (especially during current situation) without impacting their performance, in fact, the outcome has seen gains in

- Employee Productivity
- Employee Satisfaction
- Employee Retention
- Internal Collaboration and Communication
- Talent Attraction
- Better Digital Governance
- Improved Cyber Security and Compliance
- Improved Employee Experience
- Reduced Operational Costs
- Accelerated time-to-market
- Customer Experience
- Agility and Flexibility

At E2, technology will continue to play a pivotal role to support the ways in which we communicate, collaborate, and deliver day-to-day services both internally and to our clients.

### **EBJ: Which type of clients are the ones that are most interested in your technology products/services and why?**

E2: We are currently focused on both, supporting existing client base within Utility and Energy sector as well as supporting and partnering with new customers within technology sector.

E2's E2 M2M® product supports complex data collection and sharing resulting in increased efficiency and transparency on all projects. E2's Data Technology and Analytics team delivers "big data" from nearly every operating area from field services, operations and maintenance enabling its customers analyze and develop insights from this data. E2 addressed one of the biggest challenges in making data available

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to decision-makers across disciplines in a way that allows everyone to benefit from it.

**EBJ: What will be your technology focus over the next decade?**

E2: Integration of technology with the various science and engineering disciplines will be the focus in the next decade. For example, an expansion and improvement of characterization of epidemics such as Covid-19 and others yet to come through technological advancements and implementation in the environmental industry. We have seen a precursor of it in the last few months in the municipal wastewater sector where they are using coronavirus detections in their wastewater streams as indicator parameters.

The environmental industry will be key to the integration of technology among biological, medical, toxicological, and other related areas with the engineering sector. Environmental monitoring and characterization will take a leap forward through use of innovative technologies that will improve accuracy and efficiency. Similarly, environmental related remediation and construction will utilize new technology to improve efficacy. ▣

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**E2 Consulting Engineers’ Web App E2 M2M®**

E2 M2M® is a highly customizable and proprietary Web App and iPad application that facilitates data collection and sharing, resulting in increased efficiency and transparency on important projects. E2 M2M® streamlines the myriad of data required by complex projects, programs, and activities. A proprietary cloud-based application, E2 M2M® facilitates traceable, verifiable, and complete data collection and sharing for increased transparency and efficiency. Multiple field and office teams use E2 M2M® concurrently, logging information such as boring logs, field notes, water levels, site pictures, videos, inspection reports, chains-of-custody, and daily operations logs. E2 M2M® Core, Construction and Inspection, Project and Program Management, Environmental Sampling and EcoAssessments modules are most useful and requested within environmental projects.